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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/812,812	03/30/2004	Carlos F. Navarro	074991.0102	6032

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EXAMINER

MACPHERSON, MEOGHAN E

ART UNIT	PAPER NUMBER
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3732

DATE MAILED: 01/20/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/812,812

Applicant(s)

NAVARRO ET AL.

Examiner

Meoghan E. MacPherson

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-43 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-43 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 30 March 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 3/30/04, 3/14/05
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☒ Other: Appendix I and II

DETAILED ACTION

Drawings

1. The drawings submitted March 30, 2004 have been accepted by the examiner.

Specification

2. The abstract is objected to on the basis of overall length. Applicant is reminded of the format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1-9, 12, and 15-23 are rejected under 35 U.S.C. 102(b) as being anticipated by Voudouris et al (US Patent No. 6,368,105).

Voudouris et al discloses a self-ligating lingual orthodontic bracket 1 attached to the lingual surface of an upper tooth in the upper arch, comprising a base 3 with a base surface, a first flange A extending generally horizontally from the base in a lingual direction, a second flange B extending horizontally from the base in a lingual direction and separated from the first flange vertically toward the person's occlusal plane to define a transverse wire slot 5 that is exposed on a lingual side of the bracket (col. 9, line 52-col. 10, line 6; col. 10, lines 42-62; see Figure 1, and Appendix I). Voudouris et al also discloses a clip slot C formed generally

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vertically through the bracket, and a flexible retaining clip 20 comprising a first 22, second D, and third 21 portion (col. 9, line 62-col. 10, line 22; see Figures 1, 3 and 8, Appendix I).

The first portion 22 is positioned generally vertically within the clip slot, the second portion D extends generally horizontally from the first portion, and the third portion 21 extends generally vertically from the second portion (col. 9, line 62-col. 10, line 22; see Figures 1, 3, and 8, Appendix I). The first portion of the retaining clip comprises a notch 24 (col. 10, lines 18-22; col. 12, lines 28-63; see Figures 1, 3, and 8, Appendix I). Voudouris et al discloses that the first portion of the retaining clip comprises an angled free end extending vertically out of the clip slot in a direction away from the occlusal plane (see Figures 3 and 8, and Appendix I). Voudouris et al also discloses that the third portion is biased against the central portion of the second flange when the retaining clip is in the open position, and is biased against the orthodontic wire when the retaining clip is in the closed position (col. 9, line 62-col. 10, line 22; col. 10, lines 42-62; see Figures 3 and 8, and Appendix I).

Voudouris et al discloses that the central portion of the second flange comprises a detent 11, that the second flange also comprises a bite plate, and that the first flange comprises a recess 6 (col. 9, line 52-col. 10, line 6; col. 10, lines 42-62; see Figure 1, and Appendix I). Voudouris et al discloses the second flange comprises a mesial and distal arm defining a central gap, the third portion of the retaining clip covers all of a lingual surface of the central portion of the second flange between its mesial and distal sides, the second flange comprises a central slot through which the third portion of the retaining clip moves, and that a lingual surface of the third portion of the retaining clip is entirely exposed (see Figures 1 and 8, and Appendix I). Voudouris et al further discloses a hook 10 extending from a side of the first flange in a direction away from the

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occlusal plane, and that the hook comprises a ball-shaped free end (col. 11, lines 4-10; see Figures 1 and 8, and Appendix I).

Regarding claims 15-23, the method of using the bracket is inherent in view of the given structure, and is therefore subject to the previously described rejections.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 10 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Voudouris et al in view of Hanson'486 (US Patent No. 5,906,486). Voudouris et al discloses the orthodontic bracket that shows the limitations as described above; however, Voudouris et al does not disclose the orthodontic wire having various cross-sectional dimensions.

Hanson'486 teaches a self-ligating orthodontic bracket wherein the wire slot and retaining clip are able to accommodate any of a plurality of orthodontic wires with different cross-sectional dimensions, including circular or rectangular (col. 5, lines 24-43; see Figure 3). It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the orthodontic bracket of Voudouris et al to incorporate the teachings of Hanson'486 to create a bracket able to fit a wide variety of orthodontic wires such that the dental professional may select the orthodontic wire best suited for a particular patient and their dental needs.

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7. Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over Voudouris et al in view of Hanson'882 (US Patent No. 5,586,882). Voudouris et al discloses the orthodontic bracket that shows the limitations as described above; however, Voudouris et al does not disclose the second flange being continuous between the mesial and distal sides.

Hanson'882 teaches a self-ligating orthodontic bracket whose second flange is continuous between its mesial and distal sides (see Figures 1 and 2). It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the orthodontic bracket of Voudouris et al to incorporate the teachings of Hanson'882 to create a bracket whose second flange provided a stable surface for the retaining clip to rest upon while remaining exposed.

8. Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over Voudouris et al in view of Kurz'037 (US Patent No. 4,337,037). Voudouris et al discloses the orthodontic bracket that shows the limitations as described above; however, Voudouris et al does not disclose that the second flange extends in the lingual direction past the first flange.

Kurz'037 teaches a lingual orthodontic bracket whose second flange A extends in the lingual direction past the first flange to provide an extended bite plate (col. 2, line 13-col. 3, line 5; see Figures 1, 2B, 3B, and 4B). It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the orthodontic bracket of Voudouris et al to incorporate the teachings of Kurz'037 to create a bracket that can sustain and redirect the force from opposing teeth to prevent the brackets from being sheared off the teeth.

9. Claims 24-32, and 35-43 are rejected under 35 U.S.C. 103(a) as being unpatentable over

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Voudouris et al discloses the orthodontic bracket that shows the limitations as described above; however, Voudouris et al does not disclose a third flange or a detent on the third flange.

Takemoto'468 teaches an orthodontic bracket with a third flange E extending horizontally from a second flange in a labial direction, separated from the first flange vertically toward the person's occlusal plane to define a generally transverse wire slot exposed from a labial direction to receive the orthodontic wire from the labial direction (col. 1, lines 18-29; col. 4, line 66-col. 5, line 20; col. 7, lines 10-22; col. 10, line 45-col. 11, line 38; see Figures 1, 14A, and Appendix II). It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the orthodontic bracket of Voudouris et al to incorporate the teachings of Takemoto'468 to create a bracket that provides a more comfortable fit for the patient, and a more effective treatment plan for the dental profession by preventing the user's tongue or opposing teeth from removing the orthodontic wire from within the wire slot.

Regarding claim 27, it would have been obvious to one having ordinary skill in the art at the time the invention was made to place the detent on the third flange instead of the second flange, since it has been held that rearranging parts of an invention involves only routine skill in the art. *In re Japikse*, 86 USPQ 70.

10. Claims 33 and 34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Voudouris et al in view of Takemoto'468 and further in view of Hanson'486. Voudouris et al in view of Takemoto'468 discloses the orthodontic bracket that shows the limitations as described above; however, Voudouris et al in view of Takemoto'468 does not disclose the orthodontic wire having various cross-sectional dimensions.

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Hanson'486 teaches a self-ligating orthodontic bracket wherein the wire slot and retaining clip are able to accommodate any of a plurality of orthodontic wires with different cross-sectional dimensions, including circular or rectangular (col. 5, lines 24-43; see Figure 3). It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the orthodontic bracket of Voudouris et al in view of Takemoto'468 to incorporate the teachings of Hanson'486 to create a bracket able to fit a wide variety of orthodontic wires such that the dental professional may select the orthodontic wire best suited for a particular patient and their dental needs.

Conclusion

11. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

US Patent No. 6,776,613 to Orikasa.

US Patent No. 6,843,651 to Orikasa.

US Patent App. No. 2004/0166458 to Opin et al.

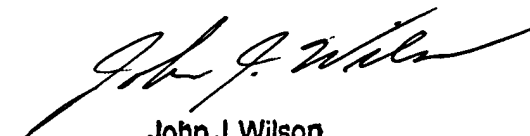
12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Meoghan E. MacPherson whose telephone number is (571)-272-5565. The examiner can normally be reached on Mon-Fri 9am-5pm.

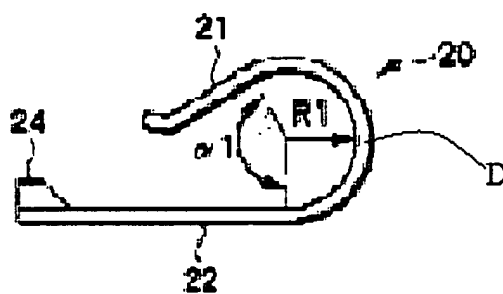
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kevin Shaver can be reached on (571)-272-4720. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Meaghan E. MacPherson


John J. Wilson
Primary Examiner



Appendix II

Fig.1

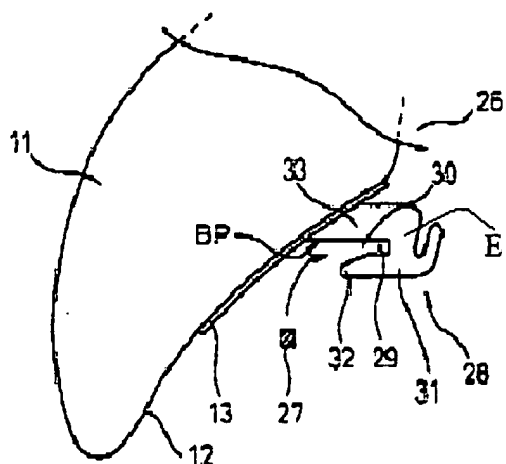


FIG. 14A

